



Department
for Environment
Food & Rural Affairs



Foreign &
Commonwealth
Office



Department
for International
Development



Darwin Plus: Overseas Territories Environment and Climate Fund Project Application Form

Submit by **2359 GMT Monday 29 August 2016**

Please read the [Guidance](#) before completing this form.

Information to be extracted to the database is highlighted blue. Blank cells may render your application ineligible

Basic Data

1. Project Title (max 10 words)	Mapping Falklands and South Georgia coastal margins for Spatial Planning		
2. UK OT(s) involved	Falkland Islands (FI) and South Georgia and South Sandwich Islands (SG)	Letter of support from OT government attached?	Yes/No
3. Start Date:	April 2017		
4. End Date:	March 2020		
5. Duration of project (no longer than 36 months)	36 months		

Summary of Costs	2017/18	2018/19	2019/20	Total
6. Budget requested from Darwin	£96,144	£115,428	£67,124	£278,696
7. Total value of matched funding	£65,039	£48,839	£37,639	£151,517
8. Total Project Budget (all funders)	£161,183	£164,267	£104,763	£430,213
9. Names of Co-funders	SAERI, OSU, FIG, SGSSIG, SMSG			

10. Name, address and contact details of lead applicant organisation (responsible for delivering outputs, reporting and managing funds)*	South Atlantic Environmental Research Institute (SAERI) Stanley Cottage Stanley Falkland Islands FIQQ 1ZZ
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* Notification of results will be by email to the Project Leader named in Question 12

11. Type of organisation of Lead applicant. Place an x in the relevant box.										
OT GOVT	x	UK GOVT	UK NGO	Local NGO	International NGO	Commercial Company	Other (e.g. Academic)	x		

12. Partners in project. Please provide details of the partners in this project and provide a CV for the individuals listed. You may copy and paste this table if necessary

Details	Project Leader	Project Leader	Project Partner 1
Surname	Brickle	Pelembe	Harte
Forename(s)	Dr Paul	Tara	Dr Michael
Post held	Director	Deputy Director	Professor
Institution (if different to above)	South Atlantic Environmental Research Institute (SAERI)	South Atlantic Environmental Research Institute (SAERI)	Oregon State University (OSU)
Department	n/a	n/a	College of Earth, Ocean and Atmospheric Sciences
Telephone/Skype			
Email			
Details	Project Partner 2	Project Partner 3	Project Partner 4
Surname	Brewin	Rendell	Brewin
Forename(s)	Dr Paul	Nick	Dr Paul
Post held	Director	Acting Head of Environmental Planning	Marine Environment and Fisheries Manager
Institution (if different to above)	Shallow Marine Surveys Group (SMSG)	Falkland Islands Government (FIG)	Government of South Georgia and South Sandwich Islands (GSGSSI)
Department	n/a	Environmental planning	n/a
Telephone/Skype			
Email			
Details	Project Partner 5		
Surname	Robinson		
Forename(s)	Dr Paul		
Post held	Earth Observation Applications Manager		
Institution (if different to above)	Joint Nature Conservation Committee (JNCC)		
Department	Earth Observation		
Telephone/Skype			
Email			

13. Has your organisation been awarded Darwin Initiative funding before (for the purposes of this question, being a partner does not count)? If yes, please provide details of the most recent awards (up to 6 examples).

Reference No	Project Leader	Title
DPLUS042	Dr Paul Brickle	Dolphins of the kelp: Data priorities for Falkland's inshore cetaceans
DPLUS027	Dr Paul Brickle	Marine Spatial Planning in the Falklands
EIDCF012	Dr Paul Brickle	Assessing Ascension Island's Shallow Marine Biodiversity

14. If your answer to Q13 was No, provide details of 3 contracts previously held by your institution that demonstrate your credibility as an implementing organisation. These contracts should have been held in the last 5 years and be of a similar size to the grant requested in this application. (If your answer to Q13 was Yes, you may delete these boxes, but please leave Q14)

15. Key Project personnel

Please identify the key project personnel on this project, their role and what % of their time they will be working on the project. Please provide 1 page CVs for these staff, or a 1 page job description or Terms of Reference for roles yet to be filled. Please include more rows where necessary.

Name (First name, surname)	Role	Organisation	% time on project	1 page CV or job description attached?
Dr Paul Brickle	Project Leader	SAERI	3%	Yes
Role yet to be filled	Project Manager	SAERI	67%	Yes
Tara Pelembe	Project Leader	SAERI	1%	Yes
Teresa McNeill	Business Manager	SAERI	1%	Yes
Role yet to be filled	Senior Scientist	SAERI	3%	Yes
Dr Ilaria Marengo	Data Management	SAERI	3%	Yes
Nick Rendell	Reviewer, PMG and PSG member	FIG	1%	Yes
Dr Paul Brewin	Review and ground truthing	SMSG / GSGSSI	1%	Yes
Professor Michael Harte	Context based geospatial analyses and modelling of coastal environments, marine spatial planning	OSU	13%	Yes
Dr Chris Goldfinger	Object based benthic habitat modelling	OSU	4%	Yes
Dr Robert Kennedy	Object based image analysis and environmental geospatial analysis	OSU	4%	Yes

	and training			
Dr Jamon Van Den Hoek	Machine based learning, high resolution satellite data for geospatial analysis.	OSU	4%	Yes
Dr Paul Robinson	Specialist advice in Satellite imagery pre-processing and analysis and training	JNCC	4%	Yes
Dr Gwawr Jones	Specialist advice in Satellite imagery pre-processing and analysis and training	JNCC	4%	Yes

Project Details

16. Project Outcome Statement: Describe what the project aims to achieve and what will change as a result. (30 words max). You can copy and paste from Q26.

Mapping generated from cost-effective and innovative remote-sensing technology will underpin spatial and conservation planning in the remote Falkland and South Georgia islands and allow efficient monitoring.

17. Background: (What is the current situation and the problem that the project will address? How will it address this problem? What key OT Government priorities and themes will it address? (200 words max)

Coastal areas are critical to humans and wildlife. Knowledge of these environments is essential to conservation and management and they have been subject to little regional study. The Falklands have increased pressures from tourism, shipping and oil production. South Georgia has less human impact, however, important marine bird and mammal habitats extend around its coastline.

Our project utilises technological and object based analyses with mixed resolution satellite imagery, spatial data and local expert knowledge in an integrated probabilistic approach. Habitat maps produced will emphasise baseline measurement, providing a sound basis for planning, decision-making and monitoring.

Plans and Policies that address the lack of coastal knowledge:

- **The Islands Plan 2014-2018. (FIG):** target to: *'Implement appropriate land and marine spatial planning frameworks to ensure the preservation and management [...].'*
- **Falkland Islands Biodiversity framework - BioFrame (2015-2030). (FIG):** recognises the information on the intertidal and near shore coastal shallow marine environment and indeed:
 - Marine invasive alien species (IAS)
 - Descriptions of ecosystems and ecotypes
 - Monitoring will feed into climate change research and policy.
- **Biodiversity Action Plan for SGSSI: 2016-2020:** *Enhance knowledge of the biodiversity and habitats of SGSSI [...], including the establishment of scientific baselines from which to monitor environmental change.*

18. Methodology: Describe the methods and approach you will use to achieve your intended outcomes and impact. Provide information on how you will undertake the work (materials and methods) and how you will manage the work (roles and responsibilities, project management tools etc.). Give details of any innovative techniques or methods. (500 words max)

Outcomes and impact will be delivered through 5 integrated Work Packages (WP) addressing coastal margins:

WP1: Digitisation of 50 year old aerial imagery (FI)

1956 aerial imagery digitised, geo-referenced and analysed to map historic coastal margins. This will be used in the habitat modelling (WP2) to identify boundaries/features and in monitoring (WP4).

WP2: Object based image analysis and habitat modelling (FI + SG)

Open-access multispectral medium resolution satellite imagery (Landsat 8 and Sentinel 2) accessed through Google Earth Engine collected in 2016 will be combined with existing geo-referenced data and contextual information (including expert judgement) to create a cost-effective object based classification of the terrestrial, intertidal and near shore marine habitats. Datasets include digitised aerial photographs from WP 1 and extensive dive survey data collected by the SMSG. JNCC will provide technical specialist input, support and training (satellite imagery pre-processing, analysis in R). OSU will lead image analysis, object based habitat modelling, and provide training. A 2016 habitat model of the coastal margin of FI and SG will be produced.

WP3: Identification, prioritisation and fulfilment of information data needs for systematic conservation and planning (FI WP 3a and SG WP 3b)

With innovative probabilistic spatial and temporal analyses additional data gathering in the most cost effective manner will be targeted to:

- (1) Identify significant uncertainties in habitat classifications through insufficient image resolution or spectral, textural and/or contextual information
- (2) Establish, using value of information analyses, whether addressing this uncertainty matters from a conservation perspective
- (3) Address uncertainty by acquiring, for example, high resolution and/or enhanced multispectral or radar imagery through:
 - High resolution commercial satellite imagery (e.g. WorldView 2,3)
 - Trialling the use of unmanned aerial vehicles to produce high resolution, low attitude images of priority areas
- (4) Ground truthing on both SG and FI

WP4: Prioritisation of ongoing planning, protection and monitoring

Outputs will be integrated into terrestrial and marine planning, through being added to the existing databases used by SG and FI planners, and subsequent analysis of any changes that might need to be made to current policy based on these new data e.g. prioritisation of areas for conservation/ongoing monitoring

- Drawing on the outcomes of WP 3 high priority areas will be identified for short-term (e.g. requiring additional data) and long-term monitoring (to detect change in habitats of critical concern) plus short term and long-term monitoring protocols/methods for these will be established. On island training in these monitoring methods will also be undertaken.

WP 5: Cross-cutting, monitoring and evaluation

This work package is dedicated to:

- Ensuring the project finds the 'smartest' most streamlined ways for integrating the outputs and processes with other territory initiatives. For example through partnership working, the use of existing data sharing platforms etc.
- Monitoring and evaluating the delivery and impact of the project

A representative of each partner organisation will be on **the Project Management Group (PMG)** to oversee project implementation, provide advice, monitoring and evaluation. Wider stakeholders will form part of the Project **Stakeholder Group (PSG)** which will be a core element of project communications.

19. How does this project:

- Deliver against the priority issues identified in the assessment criteria
 - Demonstrate technical excellence in its delivery
 - Demonstrate a clear pathway to impact in the OT(s)
- (500 words max)

Priority issues:

- *Developing data systems...including baseline survey and subsequent monitoring:* Maps and data generated will feed into the regional South Atlantic Information Management System, into the FI Marine Spatial Planning GIS portal and SG webGIS portal. The baseline provided by this project will be a 'first'. Monitoring will also be focussed on both during and after the project, with the methods, and skills built being applied into the future to ensure that there is a realistic, low-cost approach to long-term monitoring
- *Developing ecosystem-based...* : By providing baseline maps of coastal margin, the project will make a significant contribution to closing an existing data gap. As such will enhance the evidence-base available for decisions around systematic conservation planning and sustainable use of the terrestrial and marine habitats that support the ecology and economy of FI and SG
- *Marine environment/Blue Belt).* This project will provide a baseline for the environments of the coastal margin which will feed into the Marine Spatial Planning process that has been established on FI through DPLUS027 and provide an improved evidence base for planning and decision-making in the FI and SG. The monitoring that will be established will improve the ability to manage the remote coastal margin areas through using satellite imagery to detect changes over time, and identify areas under threat. In SG, the outputs will provide direct support to MPA management

Technical Excellence:

- Build on technological advances and ease of availability of earth observation data, to demonstrate technical excellence. The team includes local experts and specialists from the UK and USA who will provide the latest developments in this field to ensure that the most relevant, cost effective methodologies are adapted to suit the environments and the resources of FI and SG
- Deliver a baseline for assessing the conservation status and susceptibility of habitats to emerging anthropogenic and climatic threats. It will leave a legacy of skills in both Territories using satellite imagery for habitat classification and for long-term monitoring. Parallel studies for data utilisation are being progressed with partners

Impact

- Demonstration of the impact of the project will be built into the monitoring and evaluation plan (see section 29)

- The project is one that has been generated and is **owned locally**, it address key gaps identified by GSGSSI and FIG who are both partners and keen to use the outputs. It also addresses UK government OT policy
- Strong partnerships and stakeholder interest in the marine environment on both FI and SG have been established. It will **further develop institutional capacity** providing the breadth of experience needed to ensure that work is delivered to a high standard and will inform high-level management decisions
- The project will complement the FI component of a UK government supported project 'Natural capital in the Caribbean and South Atlantic Overseas Territories: valuation, vulnerability and monitoring change' – starting in later 2016. This project is managed by JNCC and will be implemented in FI by SAERI
- Sustainability. See Section 27

20. Who are the **stakeholders** for this project and how have they been consulted (include local or host government support/engagement where relevant)? Briefly describe what support they will provide and how the project will engage with them. (250 words max)

FIG is a primary stakeholder through their responsibilities defined in the BioFrame, research permitting and spatial planning policies. **FIG** will be directly engaged as project partners and members of the PMG. Primary stakeholder **GSGSSI** are also project partners again directly engaged in the project as members of the PMG. **Falklands Conservation (FC)** is also a key stakeholder, and has provided a letter of support for the project. FC along with the FIG Fisheries Department will be part of the PSG. Another important stakeholder group are on-island individuals interested in learning the remote sensing skills required for long-term monitoring. These individuals will be identified during the course of the project and will take part in the training workshops.

Stakeholders were informed through a concept note highlighting data gaps, issues and solutions. Through feedback the project design has been a locally-led iterative process. All other stakeholders who are project partners have been fully consulted, have prepared letters of support and will be part of the PMG. Off-island partners have been integrated into the project to bring technical guidance and links to new and emerging technologies.

The PMG will have access to the project's most current information and outputs through the cloud-sharing platform Share-point.

Community support is essential to project success, particularly on FI, through the use of volunteers and landowner assistance at field-sites. Significant effort will be made to regularly inform all parties and the wider community including through direct liaison, on-line resources, local media and the SAERI newsletter.

21. Institutional Capacity: Describe the implementing organisation's capacity (and that of partner organisations where relevant) to deliver the project. (500 words max)

The team assembled here represent the leading edge in remote sensing, ecological knowledge and logistical expertise to carry out this project in the remote Falkland Islands and South Georgia

South Atlantic Environmental Research Institute (SAERI): SAERI is an FIG initiative. SAERI aspires to be a world renowned, well branded environmental research institute. SAERI has the infrastructure and capacity to conduct environmental research throughout the South Atlantic. SAERI's Director is an

established marine scientist with many years' experience managing and co-ordinating multi institutional research projects, which include previous Darwin Initiative projects (see section 13).

Government of South Georgia and the South Sandwich Islands (GSGSSI): An Overseas Territory Government whose headline strategy for 2016-2020 is 'World class environmental management underpinned by the highest standards of governance'. GSGSSI is financially self-sufficient and facilitates responsible science in the Territory.

Falkland Islands Government Environment and Planning Department (FIGEPD): Has core-government oversight of FIG's environmental remit including environmental policy and environmental impact assessments.

Shallow Marine Surveys Group (SMSG): Is a Falkland Islands' based organisation that has a successful track record of gaining competitive research funding in the fields of sub-tidal marine ecology, biodiversity, conservation, and fisheries science. SMSG is headed by a core group of experienced biologists/ecologist and divers that carry out marine ecological research that contributes to local and regional conservation policy initiatives. The scope of SMSGs work includes the splash zone, inter-tidal and sub-tidal of Falkland Islands' shores and within all South Atlantic Overseas Territories.

College of Earth, Ocean and Atmospheric Sciences, Oregon State University (OSU): Is an internationally recognised leader in the study of the Earth as an integrated system. Researchers from University's Active Tectonics and Sea Floor Mapping Lab (Goldfinger) and Geospatial Analysis Initiative (Kennedy, Harte and Van de Heck), bring a transdisciplinary approach to innovative object based spatial and temporal analysis of marine and terrestrial habitats.

Joint Nature Conservation Committee (JNCC) Support Co: Is a public body advising UK on national and international nature conservation. They have a long-term Overseas Territories Programme, and have run a number of projects that have included the Falklands and South Georgia In addition; they will bring technical expertise from their Earth Observation team to the project.

APPLICANTS SEEKING LESS THAN £100,000 ARE NOT REQUIRED TO COMPLETE THE LOGICAL FRAMEWORK AT QUESTION 26 HOWEVER YOU MAY FIND IT A USEFUL EXERCISE TO HELP YOU STRENGTHEN YOUR PROJECT

26. LOGICAL FRAMEWORK

Darwin Plus projects will be required to report against their progress towards their expected outputs and outcome if funded. This section sets out the expected outputs and outcome of your project, how you expect to measure progress against these and how we can verify this.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Impact:</p> <p>Environmental evidence-base for decision-making on the FI and SG is significantly enhanced by the provision of baseline data in a thematic area that is a current gap i.e. coastal margin.</p>			
<p>Outcome:</p> <p>The mapping generated from this cost-effective and innovative remote-sensing will underpin and enhance spatial and conservation planning in the remote FI and SG and allow for efficient, effective monitoring.</p>	<p>0.1 Coastal margin habitats are broadly classified and are visualized via digital outputs (e.g. maps, GIS layers) at spatial and temporal scale sufficient for spatial planning and decision making for FI and SG</p>	<p>0.1 FI MSP Web GIS portal 0.2 SG webGIS portal 0.3 SAERI project webpages.</p>	<p>SAERI's IMS-GIS Centre continues to retain relevant skilled staff</p>
<p>Outputs:</p> <p>1. Project Management structure, and communications tools established</p>	<p>1.1 An MoU agreed and signed by all partners by August 2017 1.2 Project Manager recruited by September 2017 1.3 A PMG meeting held every 3 months starting May 2017 1.4 A Project Stakeholders group (PSG) meeting held every 6 months starting May 2017 1.5 At least 1 project webpage created by April 2017, and at least 1 update to the page made every month. 1.7 Final project report produced by March 2020</p>	<p>1.1 Project Manager employment contract signed 1.2 MOU signed by all parties 1.3 PMG meeting notes available online 1.4 PSG meeting notes available online. 1.5 Project webpage available for viewing online</p>	<p>PM with the relevant skills is able to be recruited.</p>

2. Work Package 1 (WP1): Digitised 50 year old aerial imagery (FI only)	2.1 1 digital map of 50 year old aerial imagery by March 2018	2.1 1956 Digital map available via MSP GIS portal	Aerial imagery is of sufficient quality to be able to be digitised. Preliminary checks suggest this is the case.
3. Work package 2 (WP2): Object based image analysis and habitat modelling of the coastal margin (FI and SG)	3.1 Stage 1 habitat modelling and classification complete for the FI by December 2017. 3.2 Stage 1 habitat modelling and classification complete for the SG by August 2017.	3.1 FI coastal margin habitat map available online via MSP GIS portal 3.2 SG coastal margin habitat map available online via South Georgia GIS portal	Satellite imagery at useful resolution and without cloud cover is obtainable. Preliminary checks suggest several options and suitable imagery will be available. Satellite imagery and derived products are open access. Preliminary enquiries and expert opinion suggest this is feasible.
4. Work Package 3 (WP3): Identification, prioritisation and fulfilment of information data needs for the systematic conservation and planning of the coastal margin for the FI and for SG	4.1 At least 1 FI(February 2018) and 1 SG (August 2017) stakeholder workshop held to identify and prioritise data needs for the coastal margin 4.2 Ground truthing of satellite imagery analysis on SG (November 2017) and the FI (2018) 4.3 Stage II geospatial data products reflecting prioritized information needs utilizing high res imagery to reduce uncertainty in habitat models/classifications and address spatial and temporal data priority needs expressed by stakeholders – for both the FI and SG by April 2019	4.1 FI and SG workshop report on the project page website 4.2 FI coastal margin fine scale maps available online via FI MSP GIS portal. 4.3 SG coastal margin fine scale maps available online via SG GIS portal	Satellite imagery at useful resolution and without cloud cover is obtainable. Preliminary checks suggest several options and suitable imagery will be available. Permissions to access study areas approved by landowners (where required).
5. Work Package 4 (WP4): Prioritisation of ongoing planning, protection and monitoring of the coastal margin	5.1 A monitoring manual produced for long-term monitoring of coastal margin for the Falklands by April 2019 5.2 A monitoring manual produced for	5.1 FI monitoring manual available on the project page website 5.2 SG monitoring manual available on the project page website.	There are in-territory staff who are well-positioned to undertake the training. Discussions to identify where the future long-term monitoring role would sit for

	<p>long-term monitoring of coastal margin for SG by April 2019</p> <p>5.3 At least 1 face-to-face training workshop in implementing monitoring undertaken in April 2019</p>	<p>5.3 Training workshop report available on project page website</p> <p>5.4 -Televised training available online on project page website.</p>	both islands are underway.
6. Work Package 5 (WP 5) All outputs integrated with existing and emerging initiatives	<p>6.1 New geospatial products maximally informed and integrated with existing FI and SG geo-spatial data</p> <p>6.2 Synthesis workshop held in August 2019 to implement findings into systematic conservation planning</p>	<p>6.1 Report on integration with other initiatives on the FI published on the project webpage.</p> <p>6.2 Report on integration with other initiatives on the SG published on the project webpage.</p>	<p>Owners and co-ordinators of existing initiatives are willing to collaborate and explore these opportunities as well.</p> <p>The support of the project partnership brings on board key leaders in these areas.</p>
7. Monitoring and evaluation	<p>7.1 Detailed Monitoring and evaluation plan produced by September 2017</p> <p>7.2 6-monthly updates on implementation of M&E Plan provided to PMG</p>	<p>7.1 Detailed M&E Plan available on project webpage</p> <p>7.2 M&E updates available on project webpage</p>	<p>PM has skills to deliver M&E plan</p> <p>This will be built into the Job description of the PM and the ToRs of the PMG</p>
<p>Activities (each activity is numbered according to the output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1)</p> <p>1.1 Advertise PM role</p> <p>1.2 Draft and sign Project Partners MoU</p> <p>1.3 Interview and recruit PM</p> <p>1.4 Quarterly PMG meetings</p> <p>1.5 6 monthly PSG meetings</p> <p>1.6 Monthly Webpage updates</p> <p>1.7 Final project report and publicity</p> <p>2.1 Scan the 1956 aerial imagery</p> <p>2.2 Digitise the aerial imagery</p> <p>2.3 Produce a digital map of the 1956 coastal margin</p> <p>2.4 Upload the 1956 coastal margin map onto the MSP GIS portal and a copy of the associated metadata onto the South Atlantic metadata catalogue</p> <p>3.1 Source the Satellite imagery for FI and SG</p> <p>3.2 Pre-processing of satellite imagery to prepare for analysis</p> <p>3.3 Undertake Analysis of the satellite imagery and habitat modelling</p> <p>3.4 Produce Coastal Margin habitat map for SG and for FI</p> <p>3.5 Upload the Coastal Margin habitat map onto the MSP GIS portal (FI) and the SGSSI web portal (SG) and upload a copy of the associated metadata onto the South</p>			

- Atlantic metadata catalogue.
- 4.1 Confirm workshop date, venue, and participants for the FI
 - 4.2 Confirm workshop programme, speakers and facilitators through consultations via the PMG and PSG for the FI
 - 4.3 Host the workshop for the FI
 - 4.4 Produce the workshop report for the FI and upload onto the project webpage
 - 4.6 Confirm workshop date, venue, and participants for SG
 - 4.5 Confirm workshop programme, speakers and facilitators through consultations via the PMG and PSG for the SG
 - 4.7 Host the workshop for SG
 - 4.8 Produce the workshop report for SG and upload onto the project webpage
 - 4.9 Task the satellite to produce satellite imagery of the priority areas required for fine-scale mapping in SG and the FI
 - 4.10 Pre-process the imagery to prepare for analysis
 - 4.11 Undertake analysis of the imagery.
 - 4.12 Undertake ground truthing of analysed data on the FI
 - 4.13 Undertake ground truthing of analysed data on SG
 - 4.144 Produce detailed Coastal Margin habitat maps for priority areas for SG and for the FI
 - 3.5 Upload the detailed Coastal Margin habitat map onto the MSP GIS portal (FI) and the SG web portal and upload a copy of the associated metadata onto the South Atlantic metadata catalogue.
 - 5.1 Write a long-term monitoring manual for the FI and SG and upload onto the project webpage
 - 5.2 Confirm date, venue, and participants for the FI and SG monitoring training workshop
 - 5.3 Undertake training workshop
 - 5.4 Record videos of training sessions and upload online onto the project webpage
 - 6.1 Review all of the existing (relevant) stakeholder groups and data creation and management initiatives and protocols.
 - 6.2 Produce a report on the review demonstrating how this initiative links to and builds on the existing and emerging work, and publish on the project webpage.
 - 6.3 Prepare for and host synthesis workshop to implement findings into systematic conservation planning
 - 7.1 Prepare monitoring and evaluation plan
 - 7.2 Prepare and present 6 monthly M&E updates
 - 7.3 Upload plan and updates onto webpages

27. Sustainability: How will the project ensure benefits are sustained after the project has come to a close? If the project requires ongoing maintenance or monitoring, who will do this? (200 words max)

The project has established a locally-led partnership which includes OT Governments with integration and use of the products by FIG and GSGSSI forming a core part of the project.

We will fill key data gaps, establish baselines against which future change can be monitored and build local expertise. Project data will enable provision of evidence-based advice to FIG and GSGSSI strategic planning.

Project data will be available for any future initiatives (see section 28) and feed into a range of ancillary analyses:

- The partnership with OSU will also develop student projects to allow complementary analyses
- The automated access and analysis of open-access Landsat 8 and Sentinel 2 satellite imagery through Google Earth Engine will support near real-time monitoring and regular updating of derived planning maps for distribution

The in-house (SAERI) Project Manager will provide 'on-island' expertise for the duration of the project, and training workshops have been built into the project activities to ensure the long-term monitoring component of the project. SAERI will continue to play a role in supporting the continuity of the monitoring through its on island role and through its permanent links with key individuals involved in the project who are SAERI fellows.

28. Open access: All outputs from Darwin Plus projects should be made available on-line and free to users whenever possible. Please outline how you will achieve this. (200 words max)

Processes established under the project work towards all outputs being made available online and free to use whenever possible.

- **Information:** Reports, meeting notes, training manuals, volunteer resources etc. will be made available online via the dedicated project webpages set up on the SAERI website. Project partners will link through to these web pages, and provide relevant updates
- **Data:**
 - Falklands-related data will be deposited in the Information Management Centre. Data security and data access protocols are already in place. The single centralised location and standardised request procedure maximise the profile and accessibility of extant data. SAERI is ideally placed to ensure and promote the promulgation and use of project data. All data generated will be available online via the South Atlantic metadata catalogue
 - All South Georgia data will abide by the research permitting and data access protocols of the South Georgia Government
 - Satellite imagery purchase negotiations will be aimed at ensuring that all imagery and derived products are open access

All **peer-reviewed journal articles** will be targeted at open source journals and there is some institutional budget to ensure this.

The open access requirements of the Darwin Project Terms and conditions will be an integral part of the project implementation.

29. Monitoring & Evaluation:

Describe, referring to the Indicators above, how the progress of the project will be monitored and evaluated, making reference to who is responsible for the project's M&E. Darwin Initiative projects are expected to be adaptive and you should detail how the monitoring and evaluation will feed into the delivery of the project including its management. M&E is expected to be built into the project and not an 'add' on. It is as important to measure for negative impacts as it is for positive impact.

(Max 500 words)

The project will be implemented as a partnership between SAERI, SGSSI, FIG, OSU, JNCC and SMSG who will be members of an overall Project Management Group (PMG) to monitor and steer the project. This partnership balances organisations that have a science focus in ensuring that the scientific integrity of work is audited and also a conservation focus to ensure that the conservation needs and aims are met. This group will be tasked with ensuring the project delivers its outputs on time, on budget, and will review and monitor the quality of the outputs. The PM will present a quarterly report on progress against deliverables, M&E and quarterly financial reports to the PSG.

A wider stakeholder group the Project Stakeholder Group (PSG) has also been created as a formal approach to including the well-established stakeholder network on both the Falklands and South Georgia. The six monthly meetings of this group will also provide an opportunity for a wider audience to review and comment on the outputs of the project. Annual questionnaires will be circulated to stakeholders with questions framed to measure the impact of the project, and issues/concerns raised through these will be fed into the PMG, who will consider how the project can be adapted to address these in its next stages. The results of the end of project questionnaire will be a key component of the end of project report, and of measuring the project's success.

Summary reports will also be provided to the FIG Environmental Committee through the FIG Environment and Planning department and to the Darwin Initiative as required by the donors reporting requirements.

An online project management and file-sharing system will be established to ensure all partners have access to relevant documents, targets, etc. irrespective of geographic location.

An MOU between all of the partner organisations will be established at the start of the project and will articulate the obligations and roles of all parties in delivering the project

At the start of the project, a detailed Monitoring & Evaluation plan, that will include all of the above, will be prepared by the PM for sign off by the PMG. Progress against the M&E plan will form an integral part of the project reporting process. Oversight of the delivery of the M&E plan will be the responsibility of the PM, signing off of the implementation of the M&E plan will be the responsibility of the PMG. A component of the M&E budget allocation will be used to bring in specialist, independent review if identified as required by the PMG during and/or at the end of the project process. Work Package 5 includes the creation and delivery of the M&E plan, to ensure that it is an integral part of the project.

Number of days planned for M&E	23.5
Total project budget for M&E	£12,899
Percentage of total project budget set aside for M&E	3%

30. Financial controls: Please demonstrate your capacity to manage the level of funds you are requesting. (Who is responsible for managing the funds? What experience do they have? What arrangements are in place for auditing expenditure?)

SAERI is supported by the financial management facilities of the FIG. Grant payments will be administered through FIG with project expenditure tracked by SAERI's Business & Research Manager as a restricted fund and movements of funds will occur in a ring-fenced account. The Business & Research Manager has donor fund management, charity CEO and investment fund management experience.

FIG accounts are independently audited on an annual basis. The accountancy system and management controls have been proven through previous grant and funding awards of similar magnitude. Allowance is made for independent Darwin audit.

The Project Manager, under the guidance and approvals of the Business and Research Manager, will present a quarterly budget for approval to the PMG and submit quarterly financial reports tracking performance against those budgets.

Please complete the separate Excel spreadsheet which provides the Budget for this application. Some of the questions earlier and below refer to the information in this spreadsheet. If you are requesting over £100,000 from Darwin Plus, you must complete the full spreadsheet.

31. Value for Money

Please explain how you worked out your budget and how you will provide value for money through managing a cost effective and efficient project. You should also discuss any significant assumptions you have made when working out your budget. (200 words max)

Budget was calculated on the basis of actual costs incurred by SAERI in managing similar projects with fieldwork components. The budget has been structured to allow for skills development and capacity building within SAERI and FI without heavy reliance on external expertise so that skills and knowledge can be retained institutionally and applied in other areas of research in the future. International expertise costs and associated travel costs have been kept to a minimum so that the SAERI Project Manager is available for skills transfer.

Ground truthing is resource intensive, therefore its requirements have also been kept to a minimum and is supported by significant in kind costs:

- c. £50,000 for SG, where the ground truthing for this project has been scheduled to 'piggy-back' on a South Georgia rat eradication project field trip
- c. £50,000 for the FI where SMSG have contributed significant volunteer time

The PSG, given the strong well-established stakeholder network, will provide opportunities for additional ground truthing.

The project builds on the systems and foundations that have been created under past Darwin projects other UK FCO funded work.

This project is therefore considered excellent value for money, especially given that it covers two territories.

32. Provide a project implementation timetable that shows the key milestones in project activities. Complete the following table as appropriate to describe the intended workplan for your project

Please add/remove columns to reflect the length of your project. For each activity (add/remove rows as appropriate) indicate the number of quarters it will last, and shade only the quarters in which an activity will be carried out. The work plan can span multiple pages if necessary.

Activity	No. of months	Year 1				Year 2				Year 3			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Output 1: Project Management structure, and communications tools established													
1.1 Advertise PM role	3												
1.2 Draft and sign Project Partners MOU	2												
1.3 Interview and recruit PM	1												
1.4 Quarterly PMG meetings	10												
1.5 6 monthly PSG meetings	5												
1.6 Monthly webpage updates and newsletter articles	36												
1.7 Final project report and publicity	2												
Output 2 WP1: Digitised 50 year old aerial imagery (Falklands only)													
2.1 Scan the 1956 aerial imagery	1												
2.2 Digitise the aerial imagery	2												
2.3 Produce a digital map of the 1956 coastal margin	1												
2.4 Upload the 1956 coastal margin map onto the MSP GIS portal and a copy of the associated metadata onto the South Atlantic metadata catalogue													
Output 3 Work package 2 (WP2): Object based image analysis and habitat modelling of the coastal margin (Falklands and South Georgia)													
3.1 Source the Satellite imagery for the FI and SG	1												
3.2 Pre-processing of satellite imagery to prepare for analysis	1												
3.3 Undertake Analysis of the satellite imagery and habitat modelling	2												
3.4 Produce Coastal Margin habitat map for SG (august 2017) and for the Falklands	2												

3.5	Upload the Coastal Margin habitat map onto the MSP GIS portal (for the FI) and the GSGSSI web portal (for SG) and upload a copy of the associated metadata onto the South Atlantic metadata catalogue	2																	
Output 4	Work Package 3 (WP3): Identification, prioritization and fulfilment of information data needs for the systematic conservation and planning of the coastal margin for the FI and for SG																		
4.1	Confirm workshop date, venue, and participants for the FI	1																	
4.2	Confirm workshop programme, speakers and facilitators through consultations via the PMG and PSG for the FI	1																	
4.3	Host the workshop for the FI	1																	
4.4	Produce the workshop report for the FI and upload onto the project webpage	1																	
4.5	Confirm workshop programme, speakers and facilitators through consultations via the PMG and PSG for the SG	1																	
4.6	Confirm workshop date, venue, and participants for SG	1																	
4.7	Host the workshop for SG	1																	
4.8	Produce the workshop report for SG and upload onto the project webpage	1																	
4.9	Task the satellite to produce satellite imagery of the priority areas required for fine-scale mapping in SG and FI	3																	
4.10	Pre-process the imagery to prepare for analysis	1																	
4.11	Undertake analysis of the imagery.	1																	
4.12	Undertake ground truthing of analysed data on the FI	2																	
4.13	Undertake ground truthing of analysed data on SG	1																	
4.14	Produce detailed Coastal Margin habitat maps for priority areas for SG and for the FI	3																	
Output 5	Work Package 4 (WP4): Prioritisation of ongoing planning, protection and monitoring of the coastal margin																		
5.1	Write a long-term monitoring manual for the FI and SG and upload onto the project webpage	2																	

CERTIFICATION

On behalf of the trustees/company* of SAERI

(*delete as appropriate)

I apply for a grant of **£278,696** in respect of **all expenditure** to be incurred during the lifetime of this project based on the activities and dates specified in the above application.

I certify that, to the best of our knowledge and belief, the statements made by us in this application are true and the information provided is correct. I am aware that this application form will form the basis of the project schedule should this application be successful. (*This form should be signed by an individual authorised by the lead institution to submit applications and sign contracts on their behalf.*)

- I enclose CVs for key project personnel and letters of support.
- I enclose the most recent 2 years of signed and audited/independently verified accounts.

Name (block capitals)	Dr Paul Brickle
Position in the organisation	Director

Signed



Date:

26th August 2016

If this section is incomplete the entire application will be rejected. You must provide a real (not typed) signature. You may include a pdf of the signature page for security reasons if you wish. Please write PDF in the signature section above if you do so.

Application Checklist for submission

	Check
Have you read the Guidance ?	Yes
Have you read the current Terms and Conditions for this fund?	Yes
Have you checked the Darwin Plus website immediately prior to submission to ensure there are no late updates?	Yes
Have you provided actual start and end dates for your project?	Yes
Have you provided your budget based on UK government financial years i.e. 1 April – 31 March and in GBP?	Yes
Have you checked that your budget is complete , correctly adds up and that you have included the correct final total on the top page of the application?	Yes
Has your application been signed by a suitably authorised individual? (clear electronic or scanned signatures are acceptable in the email)	Yes
Have you included a 1 page CV for all the key project personnel?	Yes
Have you included a letter of support from the applicant organisation, main partner(s) organisations and the relevant OT Government?	Yes
Have you included a copy of the last 2 years' annual report and accounts for the lead organisation?	Yes

Once you have answered the questions above, please submit the application, not later than midnight **2359 GMT Monday 29 August 2016** to Darwin-Applications@ltsi.co.uk using the first few words of the project title **as the subject of your email**. If you are e-mailing supporting documentation separately please include in the subject line an indication of the number of e-mails you are sending (e.g. whether the e-mail is 1 of 2, 2 of 3 etc). You are not required to send a hard copy.

DATA PROTECTION ACT 1998: Applicants for grant funding must agree to any disclosure or exchange of information supplied on the application form (including the content of a declaration or undertaking) which the Department considers necessary for the administration, evaluation, monitoring and publicising of Darwin Plus. Application form data will also be held by contractors dealing with Darwin Plus monitoring and evaluation. It is the responsibility of applicants to ensure that personal data can be supplied to the Department for the uses described in this paragraph. A completed application form will be taken as an agreement by the applicant and the grant/award recipient also to the following:- putting certain details (i.e. name, contact details and location of project work) on the Darwin Initiative and Defra/FCO/DFID websites (details relating to financial awards will not be put on the websites if requested in writing by the grant/award recipient); using personal data for the Darwin Initiative postal circulation list; and sending data to Governor's Offices outside the UK, including posts outside the European Economic Area. Confidential information relating to the project or its results and any personal data may be released on request, including under the Environmental Information Regulations, the code of Practice on Access to Government Information and the Freedom of Information Act 2000.